

**CMPSH1-4****SURFACE MOUNT  
HIGH CURRENT SCHOTTKY  
BARRIER RECTIFIER****SOT-23F CASE****Central<sup>TM</sup>  
Semiconductor Corp.****DESCRIPTION:**

The Central Semiconductor CMPSH1-4 is a High Current, Schottky Barrier Rectifier in a surface mount SOT-23F package suitable for high current applications in mobile communications and DC-DC converters. **Marking Code: SH1**

**FEATURES:**

- HIGH CURRENT (1AMP)
- POWER SOT-23F PACKAGE

**MAXIMUM RATINGS:** ( $T_A=25^{\circ}\text{C}$ )

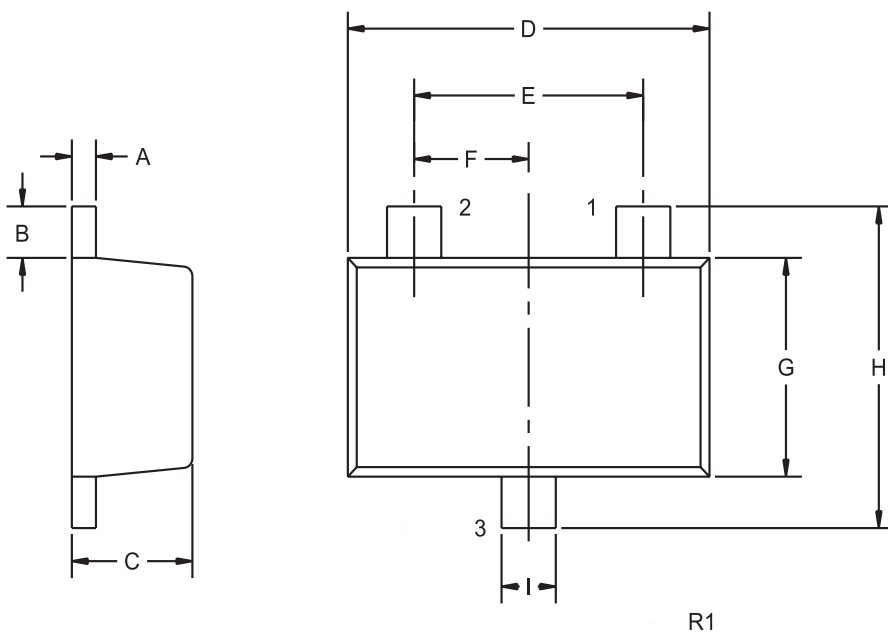
	SYMBOL		UNITS
Continuous Reverse Voltage	$V_R$	40	V
Forward Current	$I_F$	1.0	A
Average Peak Forward Current	$I_O$	1.75	A
Non Repetitive Forward Current $t \leq 100\mu\text{s}$	$I_{FSM}$	12	A
$t \leq 10\text{ms}$		5.2	A
Power Dissipation	$P_D$	350	mW
Operating and Storage			
Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	$\Theta_{JA}$	357	$^{\circ}\text{C/W}$

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_R$	$V_R=30\text{V}$			100	$\mu\text{A}$
$BV_R$	$I_R=100\mu\text{A}$	40			V
$V_F$	$I_F=100\text{mA}$			390	mV
$V_F$	$I_F=500\text{mA}$			480	mV
$V_F$	$I_F=1.0\text{A}$			550	mV
$V_F$	$I_F=1.5\text{A}$			620	mV
$V_F$	$I_F=1.0\text{A}$ , @ $T_A=100^{\circ}\text{C}$		420		mV
$C_T$	$V_R=25$ , $f=1.0\text{MHz}$		25		pF
$t_{rr}$	$I_F=500\text{mA}$ , $I_R=500\text{mA}$ , $I_{rr}=50\text{mA}$		12		ns

**SURFACE MOUNT  
HIGH CURRENT SCHOTTKY  
BARRIER RECTIFIER**

**SOT-23F CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) Anode
- 2) N/C
- 3) Cathode

**MARKING CODE: SH1**

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.004	0.008	0.10	0.20
B	0.012	0.020	0.30	0.50
C	0.031	0.039	0.80	1.00
D	0.110	0.118	2.80	3.00
E	0.075		1.90	
F	0.037		0.95	
G	0.059	0.067	1.50	1.70
H	0.091	0.098	2.30	2.50
I	0.014	0.018	0.35	0.45

SOT-23F (REV: R1)

R0 ( 27-September 2001)